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**Raw Sequence Listing**  
**Patent Application US/07/661,070**

04/22/91  
09:27:22

## SEQUENCE LISTING

## (1) GENERAL INFORMATION:

(i) APPLICANT: Huston, James S  
Charette, Marc F  
Cohen, Charles M  
Crea, Roberto  
Keck, Peter C  
Oppermann, Hermann  
Rueger, David C  
Ridge, Richard J

(ii) TITLE OF INVENTION: Product and Process for the Production,  
Isolation and Purification of Recombinant Polypeptides

(iii) NUMBER OF SEQUENCES: 14

## (iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Creative BioMolecules  
(B) STREET: 35 South Street  
(C) CITY: Hopkinton  
(D) STATE: MA  
(E) COUNTRY: USA  
(F) ZIP: 01748

## (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk  
(B) COMPUTER: IBM PC compatible  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: PatentIn Release #1.0, Version #1.25

## (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US 07/661,070  
(B) FILING DATE: 26-FEB-1991  
(C) CLASSIFICATION: 435/68  
536/27  
530/300  
530/350

## (viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Lunn, Paul G.  
(B) REGISTRATION NUMBER: 32,743  
(C) REFERENCE/DOCKET NUMBER: CRP-008DV

## (ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (508) 435-9001  
(B) TELEFAX: (508) 435-6951

## (2) INFORMATION FOR SEQ ID NO:1:

## Patent Application US/07/661,070

54 (i) SEQUENCE CHARACTERISTICS:  
55 (A) LENGTH: 4 amino acids  
56 (B) TYPE: amino acid  
57 (C) STRANDEDNESS: single  
58 (D) TOPOLOGY: linear  
59  
60 (ii) MOLECULE TYPE: peptide  
61  
62 (iii) HYPOTHETICAL: NO  
63  
64 (iv) ANTI-SENSE: NO  
65  
66 (v) FRAGMENT TYPE: internal  
67  
68  
69  
70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
71  
72 Ile Glu Gly Arg  
73 1  
74  
75 (2) INFORMATION FOR SEQ ID NO:2:  
76  
77 (i) SEQUENCE CHARACTERISTICS:  
78 (A) LENGTH: 21 base pairs  
79 (B) TYPE: nucleic acid  
80 (C) STRANDEDNESS: double  
81 (D) TOPOLOGY: linear  
82  
83 (ii) MOLECULE TYPE: cDNA  
84  
85 (iii) HYPOTHETICAL: NO  
86  
87 (iv) ANTI-SENSE: NO  
88  
89 (v) FRAGMENT TYPE: N-terminal  
90  
91  
92 (ix) FEATURE:  
93 (A) NAME/KEY: CDS  
94 (B) LOCATION: 1..21  
95  
96  
97 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:  
98  
99 GCT AAA AAC CTT AAC GAA GCT  
100 Ala Lys Asn Leu Asn Glu Ala  
101 1 5  
102  
103  
104 (2) INFORMATION FOR SEQ ID NO:3:  
105  
106 (i) SEQUENCE CHARACTERISTICS:

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107 (A) LENGTH: 7 amino acids  
108 (B) TYPE: amino acid  
109 (D) TOPOLOGY: linear  
110  
111 (ii) MOLECULE TYPE: protein  
112  
113 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:  
114  
115 Ala Lys Asn Leu Asn Glu Ala  
116 1 5  
117  
118 (2) INFORMATION FOR SEQ ID NO:4:  
119  
120 (i) SEQUENCE CHARACTERISTICS:  
121 (A) LENGTH: 13 amino acids  
122 (B) TYPE: amino acid  
123 (C) STRANDEDNESS: single  
124 (D) TOPOLOGY: linear  
125  
126 (ii) MOLECULE TYPE: peptide  
127  
128 (iii) HYPOTHETICAL: NO  
129  
130 (iv) ANTI-SENSE: NO  
131  
132 (v) FRAGMENT TYPE: internal  
133  
134  
135  
136 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:  
137  
138 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Glu  
139 1 5 10  
140  
141 (2) INFORMATION FOR SEQ ID NO:5:  
142  
143 (i) SEQUENCE CHARACTERISTICS:  
144 (A) LENGTH: 16 amino acids  
145 (B) TYPE: amino acid  
146 (C) STRANDEDNESS: single  
147 (D) TOPOLOGY: linear  
148  
149 (ii) MOLECULE TYPE: peptide  
150  
151 (iii) HYPOTHETICAL: NO  
152  
153 (iv) ANTI-SENSE: NO  
154  
155 (v) FRAGMENT TYPE: internal  
156  
157  
158  
159 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

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160  
161 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Glu  
162 1 5 10 15  
163  
164

## 165 (2) INFORMATION FOR SEQ ID NO:6:

166  
167 (i) SEQUENCE CHARACTERISTICS:  
168 (A) LENGTH: 59 amino acids  
169 (B) TYPE: amino acid  
170 (C) STRANDEDNESS: single  
171 (D) TOPOLOGY: linear  
172

173 (ii) MOLECULE TYPE: protein  
174

175 (iii) HYPOTHETICAL: NO  
176

177 (iv) ANTI-SENSE: NO  
178

179 (v) FRAGMENT TYPE: N-terminal  
180  
181  
182

## 183 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

184  
185 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Asp  
186 1 5 10 15  
187

188 Ser Arg Leu Asp Leu Asp Val Arg Thr Asp His Lys Asp Leu Ser Asp  
189 20 25 30  
190

191 His Leu Val Leu Val Asp Leu Ala Arg Asn Asp Leu Ala Arg Ile Val  
192 35 40 45  
193

194 Thr Pro Gly Ser Arg Tyr Val Ala Asp Leu Glu  
195 50 55  
196

## 197 (2) INFORMATION FOR SEQ ID NO:7:

198  
199 (i) SEQUENCE CHARACTERISTICS:  
200 (A) LENGTH: 4 amino acids  
201 (B) TYPE: amino acid  
202 (C) STRANDEDNESS: single  
203 (D) TOPOLOGY: linear  
204

205 (ii) MOLECULE TYPE: peptide  
206

207 (iii) HYPOTHETICAL: NO  
208

209 (iv) ANTI-SENSE: NO  
210

211 (v) FRAGMENT TYPE: internal  
212

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213  
214  
215 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:  
216  
217 Glu Phe Met Arg  
218 1  
219  
220 (2) INFORMATION FOR SEQ ID NO:8:  
221  
222 (i) SEQUENCE CHARACTERISTICS:  
223 (A) LENGTH: 10 amino acids  
224 (B) TYPE: amino acid  
225 (C) STRANDEDNESS: single  
226 (D) TOPOLOGY: linear  
227  
228 (ii) MOLECULE TYPE: peptide  
229  
230 (iii) HYPOTHETICAL: NO  
231  
232 (iv) ANTI-SENSE: NO  
233  
234 (v) FRAGMENT TYPE: internal  
235  
236  
237  
238 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:  
239  
240 Glu Phe Asp Pro Pro Pro Lys Phe Met Arg  
241 1 5 10  
242  
243 (2) INFORMATION FOR SEQ ID NO:9:  
244  
245 (i) SEQUENCE CHARACTERISTICS:  
246 (A) LENGTH: 13 amino acids  
247 (B) TYPE: amino acid  
248 (C) STRANDEDNESS: single  
249 (D) TOPOLOGY: linear  
250  
251 (ii) MOLECULE TYPE: peptide  
252  
253 (iii) HYPOTHETICAL: NO  
254  
255 (iv) ANTI-SENSE: NO  
256  
257 (v) FRAGMENT TYPE: internal  
258  
259  
260  
261 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:  
262  
263 Glu Phe Asp Pro Pro Pro Met Pro Arg Lys Phe Met Arg  
264 1 5 10  
265

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266 (2) INFORMATION FOR SEQ ID NO:10:

267

268 (i) SEQUENCE CHARACTERISTICS:

269 (A) LENGTH: 20 amino acids

270 (B) TYPE: amino acid

271 (C) STRANDEDNESS: single

272 (D) TOPOLOGY: linear

273

274 (ii) MOLECULE TYPE: peptide

275

276 (iii) HYPOTHETICAL: NO

277

278 (iv) ANTI-SENSE: NO

279

280 (v) FRAGMENT TYPE: internal

281

282

283

284 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

285

286 Glu Phe Asp Pro Pro Pro Met Pro Arg Met Pro Asp Pro Glu Leu Arg

287 1 5 10 15

288

289 Lys Phe Met Arg

290 20

291

292 (2) INFORMATION FOR SEQ ID NO:11:

293

294 (i) SEQUENCE CHARACTERISTICS:

295 (A) LENGTH: 193 amino acids

296 (B) TYPE: amino acid

297 (C) STRANDEDNESS: single

298 (D) TOPOLOGY: linear

299

300 (ii) MOLECULE TYPE: protein

301

302 (iii) HYPOTHETICAL: NO

303

304 (iv) ANTI-SENSE: NO

305

306 (v) FRAGMENT TYPE: N-terminal

307

308

309

310 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

311

312 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Asp

313 1 5 10 15

314

315 Ser Arg Ile Glu Leu Glu Met Arg Thr Asp His Lys Glu Leu Ser Glu

316 20 25 30

317

318 His Leu Met Leu Val Asp Leu Ala Arg Asn Asp Leu Ala Arg Ile Cys

**Raw Sequence Listing**  
**Patent Application US/07/661,070**

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09:27:33

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319          35          40          45
320
321 Thr Pro Gly Ser Arg Tyr Val Ala Asp Leu Thr Lys Val Asp Arg Tyr
322      50          55          60
323
324 Ser Tyr Val Met His Leu Val Ser Arg Val Val Gly Glu Leu Arg His
325      65          70          75          80
326
327 Asp Leu Asp Ala Leu His Ala Tyr Arg Ala Cys Met Asn Met Gly Thr
328          85          90          95
329
330 Leu Ser Gly Ala Pro Lys Val Arg Ala Met Gln Leu Ile Ala Glu Ala
331          100          105          110
332
333 Glu Gly Arg Arg Arg Gly Ser Tyr Gly Gly Ala Val Gly Tyr Phe Thr
334          115          120          125
335
336 Ala His Gly Asp Leu Asp Thr Cys Ile Val Ile Arg Ser Ala Leu Val
337          130          135          140
338
339 Glu Asn Gly Ile Ala Thr Val Gln Ala Gly Ala Gly Val Val Leu Asp
340          145          150          155          160
341
342 Ser Val Pro Gln Ser Glu Ala Asp Glu Thr Arg Asn Lys Ala Arg Ala
343          165          170          175
344
345 Val Leu Arg Ala Ile Ala Thr Ala His His Ala Gln Glu Phe Pro Gly
346          180          185          190
347
348 Glu
349
350
```

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(v) FRAGMENT TYPE: N-terminal

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Asp



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372 1 5 10 15  
373  
374 Ser Arg Leu Asp Leu Asp Val Arg Thr Asp His Lys Asp Leu Ser Asp  
375 20 25 30  
376  
377 His Leu Val Leu Val Asp Leu Ala Arg Asn Asp Leu Ala Arg Ile Val  
378 35 40 45  
379  
380 Thr Pro Gly Ser Arg Tyr Val Ala Asp Leu Glu  
381 50 55  
382

## (2) INFORMATION FOR SEQ ID NO:13:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(v) FRAGMENT TYPE: internal

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

401 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Glu  
402 1 5 10 15  
403  
404 Phe Met Pro Pro Cys  
405 20  
406  
407  
408

## (2) INFORMATION FOR SEQ ID NO:14:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(v) FRAGMENT TYPE: internal

**Raw Sequence Listing**  
**Patent Application US/07/661,070**

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09:27:53

425  
426  
427  
428  
429  
430  
431  
432  
433

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Met	Lys	Ala	Ile	Phe	Val	Leu	Lys	Gly	Ser	Leu	Asp	Arg	Asp	Leu	Glu
1				5				10					15		
Phe Met Cys															

PAGE: 1

SEQUENCE VERIFICATION REPORT  
PATENT APPLICATION US/07/661,070

DATE: 04/22/91  
TIME: 09:27:54

LINE ERROR

ORIGINAL TEXT

35 Wrong application Serial Number  
36 Wrong Filing Date  
37 Wrong Classification

(A) APPLICATION NUMBER: US 07/661,070  
(B) FILING DATE: 26-FEB-1991  
(C) CLASSIFICATION: 435/68

PAGE: 1

SEQUENCE MISSING ITEM REPORT  
PATENT APPLICATION US/07/661,070

DATE: 04/22/91  
TIME: 09:27:54

MANDATORY IDENTIFIER THAT WAS NOT FOUND

PRIOR APPLICATION DATA  
APPLICATION NUMBER  
FILING DATE

PAGE: 1

SEQUENCE CORRECTION REPORT  
PATENT APPLICATION US/07/661,070

DATE: 04/22/91

TIME: 09:27:54

LINE ORIGINAL TEXT

CORRECTED TEXT